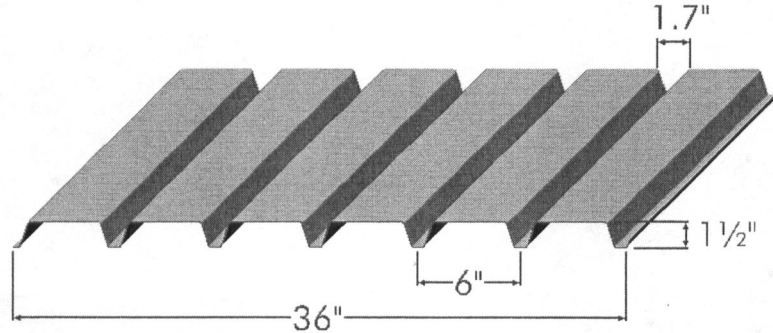


F DECK

1-1/2" high x 6" pitch x 36" wide

SECTION PROPERTIES $f_y = 33 \text{ ksi}$

GAGE	t (in)	Wd (psf)	I _p (in ⁴)	I _n (in ⁴)	S _p (in ³)	S _n (in ³)	Rbe (lb/ft)		Rbi (lb/ft)		Vn (lb/ft)	
							LRFD	ASD	LRFD	ASD	LRFD	ASD
22	0.0295	1.7	0.131	0.154	0.133	0.145	593	428	1956	1411	2950	2045
20	0.0358	2.0	0.170	0.187	0.166	0.176	824	594	2766	1995	3580	2482
18	0.0474	2.7	0.243	0.248	0.227	0.233	1760	1269	4499	3244	4740	3286
16	0.0598	3.4	0.312	0.312	0.292	0.294	3073	2216	6694	4828	5980	4146



MAXIMUM ALLOWABLE UNIFORM TOTAL LOADS, (psf) **

GAGE	SINGLE SPAN								DOUBLE SPAN								TRIPLE SPAN							
	22		20		18		16		22		20		18		16		22		20		18		16	
span	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD
3'-0"	309	195	385	243	400	332	400	400	329	209	400	254	400	336	400	400	400	258	400	314	400	400	400	400
3'-6"	211	143	270	179	381	244	400	315	243	154	296	187	392	248	400	313	302	191	367	232	400	308	400	388
4'-0"	145	110	184	137	259	187	331	241	187	118	227	144	301	190	380	240	232	147	282	179	374	237	400	299
4'-6"	105	87	132	108	185	148	235	190	148	94	180	114	238	151	301	190	184	117	224	142	296	188	374	237
5'-0"	79	70	99	87	137	120	174	154	120	76	146	92	193	122	244	154	140	95	178	115	241	152	304	192
5'-6"	62	58	77	72	106	99	133	127	99	63	121	76	160	101	202	128	108	78	136	95	190	126	242	159
6'-0"			62	61	84	83	105	105	84	53	102	64	135	85	170	107	85	66	107	80	149	106	189	134
6'-6"					68	68	85	85	71	45	87	55	115	73	145	92	69	56	86	68	119	91	151	114
7'-0"					56	56	70	70			75	47	99	63	125	79			71	59	97	78	123	99
7'-6"					48	48	59	59					86	55	109	69					81	68	102	86
8'-0"							50	50					76	48	96	61					69	60	85	76
8'-6"													67	43	85	54					59	53	73	67
9'-0"															76	48							63	60
9'-6"															68	43							55	54
10'-0"																								
10'-6"																								
11'-0"																								

MAXIMUM CONSTRUCTION SPANS (center-to-center of supports)												
span	5'-2"	5'-10"	7'-0"	8'-0"	6'-1"	6'-11"	8'-3"	9'-5"	6'-1"	6'-11"	8'-3"	9'-5"
cantilever	1'-6"	1'-9"	2'-4"	2'-9"	1'-6"	1'-9"	2'-4"	2'-9"	1'-6"	1'-9"	2'-4"	2'-9"
FM	4'-11"	5'-5"	6'-3"	-	4'-11"	5'-5"	6'-3"	-	4'-11"	5'-5"	6'-3"	-

	LRFD	ASD	← design method
3'-0"	309	195	← maximum allowable uniform total (dead+live) load **
			← span (center-to-center of supports)

- t Design thickness of deck
- Wd Weight of deck (uncoated)
- As Average area of steel of deck per foot width
- I_p Moment of inertia of deck for positive bending
- I_n Moment of inertia of deck for negative bending
- S_p Section modulus of deck for positive bending
- S_n Section modulus of deck for negative bending
- Rbe Allowable exterior web crippling value per foot of deck (based on 2" of end bearing)
- Rbi Allowable interior web crippling value per foot of deck (based on 4" of interior bearing)
- Vn Allowable shear value per foot of deck

- span Maximum single or multiple span during construction
- cantilever Maximum cantilever during construction
- FM Maximum allowable span per Factory Mutual
- f_y 33 ksi (for determining maximum loads)
- f_{span} 26 ksi (for determining maximum spans)
- ** An assumed 10 psf dead load is added to deflection

The section property table is based on AISI's Cold Formed Steel Design Manual, 1996 Edition.

The loads and maximum construction spans are based on the Design Manual for Composite Decks, Form Decks, Roof Decks and Cellular Deck Floor Systems with Electrical Distribution, Pub No. 29.

ROOF